

# CAPE OF GOOD HOPE.

DEPARTMENT OF AGRICULTURE.

# REPORTS

OF THE

# INSPECTOR OF MINES, KIMBERLEY,

AND

INSPECTOR OF CLAIMS, DARKLY WEST,

For the Year 1898.

Presented to both Pouses of Parliament by command of His Excellency the Gobernor 1899.

CAPE TOWN:

W. A. RICHARDS & SONS, GOVERNMENT PRINTERS, CASTLE-STREET. 1899.

[G. 32—'99.]

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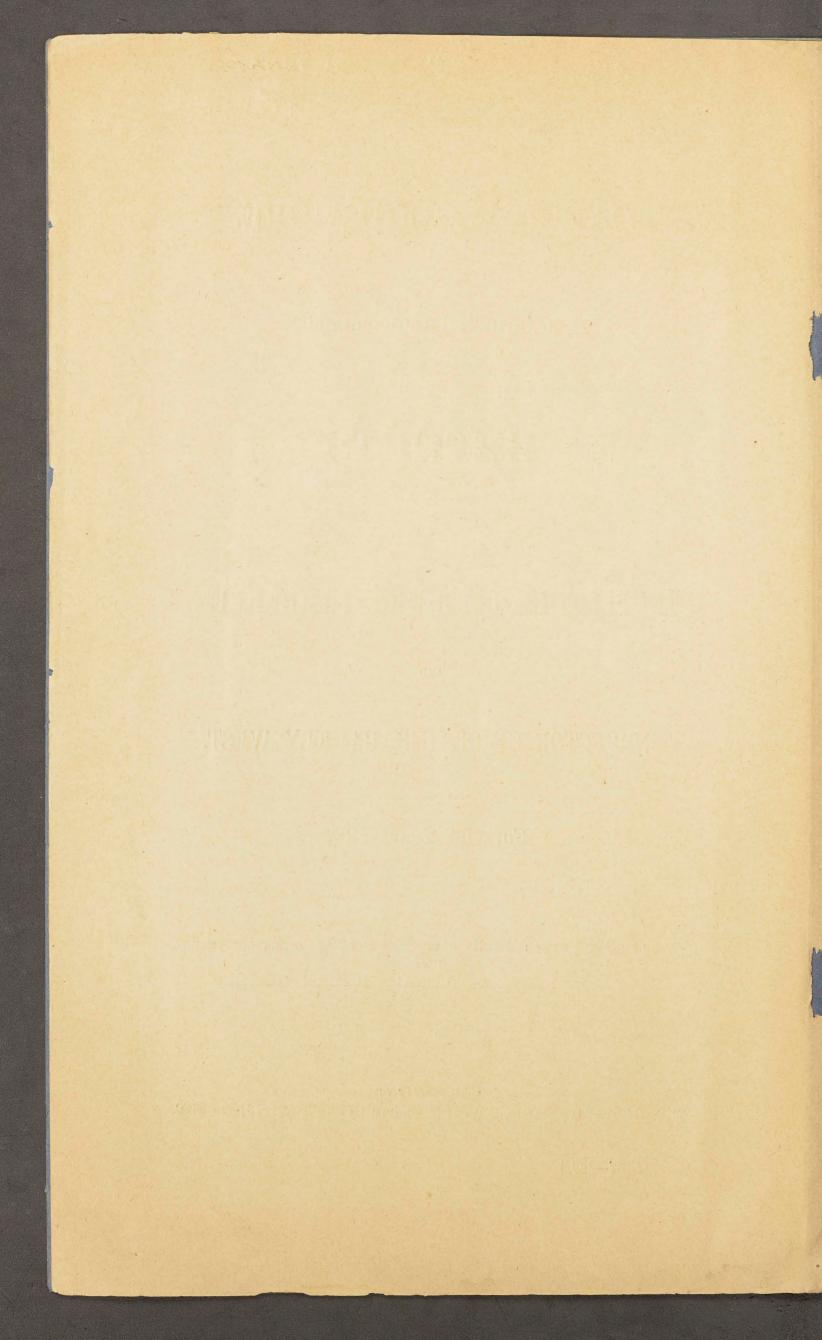
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REPORT OF THE INSPECTOR OF MINES, KIMBERLEY, FOR THE YEAR 1898.

I have the honour to present my Report for the Year 1898.

# DIAMOND MINES.

## KIMBERLEY MINE.

Rock Shaft.—The 1,840 feet level from the rock shaft was communicated with the prospect shaft, near the mine, on the 3rd Jannary of the current year; the distance from the shaft to the blue ground being 1,332 feet. This shaft is now 1,902 feet deep and sinking will shortly be resumed.

A considerable amount of development was done during the year from the prospect shaft at the levels between the 1,520 and 1,840. At the end of the year the top working level was the 1,320.

the year the top working level was the 1,320.

Atkins Shaft.—This shaft has been re-opened and timbered and will serve for ventilation and a second means of escape in case anything happens to the top of Harvey's shaft.

Depth.—The greatest depth reached in diamondiferous ground is 1,840

Hard Rock.—The enclosing rock at 1,840 feet is quartz-porphyry.

Water.—The average quantity of water pumped was 9,592 gallons per hour, as compared with 8,264 for the previous year. The highest average per hour was 10,612 gallons during the week ended 23rd April, and the lowest 6,455 for the week ended 24th December.

Area of Open Mine.—The area of the open Mine is about 38 acres.

Claims.—The number of claims is 470. As regards the claims being worked the General Manager said in his last annual report: "Taking Kimberley Mine we have 79.3 claims. The average number of claims for the fifteen levels from the 925 to the 1,520 foot levels has been a little less than ninety (90). The 1,120 foot level was smaller than the 1,520 by 3.4 claims. At the present time the number of claims would make an area of diamond-bearing ground 384 feet long by 200 feet wide."

[G. 32—'99.]

Cattle.—The average daily number of horses and mules employed was 144.

Fuel.—The average daily consumption of fuel, in tons of 2,000 lbs., was:—Coal, mine 49.7 and floors 18.4 tons; wood, floors 11.8 tons; total, coal 68.1 and wood 11.8 tons. The coal was Colonial, costing 40s. per ton, and the wood 58s. 6d.

Output.—The output of blue ground for the year was 1,224,283 loads of 16 cubic feet.

Wages.—Wages ranged from £3 12s. to £6 per week to white men, and Kafirs £1 1s. per week in Compound.

Labour.—The average number of persons daily employed is returned as follows: Underground, 179 white and 1,154 coloured; above ground, 205 white and 962 coloured. Total 2,500.

Accidents.—There were 58 accidents reported, from which 66 persons suffered. Of these 4 were killed on the spot or fatally injured.

The following table gives particulars of these accidents:—

# Accidents in Kimberley Mine in 1898.

Cause of Accident.	No. of Separate	No. of Persons killed.		No. of Persons injured.	
	Accidents.	White.	Coloured.	White.	Coloured.
Underground.					
Falls of ground	31			5	29
Whilst ascending shaft by machinery	1		1		1
Timber falling down shaft	1			1	
Ground falling down shaft	1				1
Ground falling down pass	1				1
Falls from ladders	3				3
Falling down pass	1				1
On Tramways or by trucks	3				3
Miscellaneous	1				1
Blasting	5	•••	2		7
On Surface.	48		3	6	47
On Tramways or by trucks	7		1	• • •	6
Machinery	1				1
Miscellaneous	2				2
	10		1		9
Total	. 58		4	6	56

### DE BEERS MINE.

Rock Shaft.—At the end of the year the rock shaft had reached a depth of 1,554 feet, and was being sunk to the next level, which will be 1,720 feet. The 1,400 feet tunnel from the rock shaft was brought into communication with the prospect shaft, close to the blue ground, on the 18th January of the current year. A considerable amount of development was done from the prospect shaft, between the 1,200 and 1,400 ft. levels. The 800 is the top working level of the mine, and the principal part of the blue ground was got between this and the 1,200.

No. 1 Shaft.—This shaft was sunk to the 1,400 ft. level which, at the end of the year, had been driven 215 feet towards the mine. The 500 ft. level from this shaft has been enlarged and a mechanical haulage put in it, which is used for the "west end" blue. I believe it is intended to break about 50,000 loads of this ground to test its actual value, as there is a large quantity of it in this part of the mine.

Victoria Shaft.—The water tunnel, south west from this shaft, has been brought into communication with that driven from No. 1 shaft and, now ventilation is obtained, rises are being put up in the shale to tap any water that can be found. The water tunnel, north west from Victoria Shaft, has

also been driven a considerable distance.

Between Victoria Shaft and the Rock Shaft, a well has been sunk, a short distance from the edge of the open mine, to a depth of 80 feet, and tunnels are being driven in the top of the black shale solely with a view to intercept any water that may be finding its way into the mine from this direction. Water was struck in October, and from that time to the end of the year it averaged 390 gallons per hour. It has since increased and is now over 600 gallons per hour, and the well is being sunk deeper.

Depth.—The greatest depth reached in diamondiferous ground was

1,400 feet.

Hard Rock.—The rock enclosing the blue ground at the 1,400 is quartz-

porphyry.

Water.—The average quantity of water pumped from the Rock Shaft and Victoria Shaft, including 241 gallons from the latter, was 3,831 gallons per hour, as against 4,951 for the previous year. The highest average was 5,155 gallons for the week ended 19th March, and the lowest 2,745 for the week ended 10th December.

Area of Open Mine.—The area of the open mine is about 30 acres.

Claims.—The number of claims is 618, and seven portions of claims. With reference to the claims now being worked the General Manager said in

his last annual report: -

"At De Beers mine we are working 152 claims on the 1,200 foot level. This is equivalent to an area of 730 feet long by 200 feet wide of blue ground which should yield about a carat a load. Besides the above claims there are nearly as many in the "west end" of the mine of what are called poor claims. Arrangements are now completed for taking out a large amount of this ground for the purpose of making a thorough test of its value. From tests already made I am certain that this ground will pay very well to mine."

Machinery.—At No. 1 shaft six of Babcock & Wilcox 212 h. p. boilers have been erected, also a new steel head-gear, 70 feet high, and surface mechanical haulage laid down, connecting with that at the Rock Shaft. Steel slides have been put in the hoisting compartments of this shaft, to the 800 ft. level, and the French engine, from Kimberley mine, has been erected

for hoisting until the new winding engine is ready.

At the Rock Shaft an additional electric light plant, precisely similar

to that described last year, has been added.

At the concentrating mill, owing to the accumulation of hard blue being exhausted, the jigs from one part of the mill have been removed and ordinary washing pans are being substituted. Ten of these are already at work, and another ten are being erected.

Cattle.—The average daily number of horses and mules employed

was 364.

Fuel.—The average daily consumption of fuel, in tons of 2,000 lbs., was:—Coal, mine 54·3 and floors 37·2; wood, floors 27·5 tons; at workshops, coal 13·6 and wood 1 tons. Total, ceal 105 and wood  $28\frac{1}{2}$  tons. Prices same as at Kimberley.

Output—The output of blue ground for the year was 2,186,713 loads of 16 cubic feet; and 12,307 loads of West end blue.

Wages.—Same as at Kimberley Mine.

Labour.—The average number of persons daily employed is returned as follows: Underground 217 white and 2,561 coloured; above ground 534 white and 2,288 coloured (including 1,059 convicts). Total 5,609.

Workshops.—The average number daily employed at the workshops, at work for both Kimberley and De Beer's mines, and not included in previous figures, is returned at 403 white and 209 coloured; total 612. Wages to engine drivers and mechanics £5 to £6 per week.

Accidents—There were 72 accidents reported from De Beer's Mine

Accidents — There were 72 accidents reported from De Beer's Mine during the year, from which 103 persons suffered. Of these 35 were killed on the spot or fatally injured.

The following table gives particulars of these accidents: -

Accidents in De Beers Mine in 1898.

Cause of Accident.	No. of Separate	No. of Persons killed.		No of Persons injured.	
	Accidents.	White.	Coloured.	White.	Coloured.
Underground.					
Mud-rushes Falls of ground	4 19	•••	13 8		2 11
Whilst descending shaft by machinery Machinery in shaft	2 1		5	2	15
Ground falling down shaft Timber falling down pass	1 1		1		1
Falls from ladders Falling down pass	7 1		1 1		6
On tramways or by trucks Miscellancous	6				6
On Surface.	43		30	2	42
Falls of debris On tramways or by trucks	$\frac{2}{24}$		1 4	7	1 13
Machinery	2			 1	2
	29		5	8	16
Total	72	,	35	10	58

# ST. AUGUSTINE'S MINE.

Work was carried on in blue groun! in the open mine for the first 3 months of the year and then suspended until the beginning of September, when about 600 loads of blue from the open works were washed, and a quantity of rock blue, or hardebank, broken from the 800 in the previous working. There was also some blue ground broken from the 600 for the purpose of testing. The results were unsatisfactory and operations were suspended.

Subsequently about 1,000 loads of yellow lumps, that had been lying on the surface for some time, were washed, and then all work was stopped.

# OTTO'S KOPJE MINE.

Work was regularly carried on in this mine during the year, principally at the 60 feet level. At present they are working 40 feet deeper, which is still in yellow ground.

Output.—The output is returned at 310,153 loads of yellow ground.

Labour.—The average number of persons daily employed is returned as 60 white and 347 coloured; total 407.

Accidents.—The following table gives particulars of the accidents reported:—

Accidents at Otto's Kopje Mine in 1898.

Cause	of Accident.	Note that the second second	No. of Separate		Persons led.	No. of I	
			Accidents. White. Color			White.	Colour.
SURFACE AN	D OPEN WOR	KS.					
Falls of ground	•••		2		2		1
On tramways or h	y trucks	***	1		1	•	
Machinery			2	•••		****	2
Miscellaneous			1				1
Blasting			1			•••	1
	Total	1.00	7	-47	3		5

# DU TOIT'S PAN MINE.

With the exception of a Syndicate working in the open 16 claims, at the western side of those known as the Gordon Extension Claims, nothing was done at this mine during the year.

Area of Open Mine.—The area of the open mine is about 47 acres.

Claims and Assessment.—According to the assessment framed in November, 1898, for the year 1898-'99, the number of claims was 1,966, and the assessment £1,335,595.

## BULTFONTEIN MINE.

The New Bu'ltfontein Mining Company Limited.—Work was vigorously carried on by this Company during the year and the development of the 520, 560 and 600 feet levels was completed. The hoisting of blue ground through the rock shaft from the 600 ft. level was commenced in April and has regularly proceeded since. A mechanical haulage has been erected in this level and it is lit by the electric light.

Air Shaft—The air shaft has been sunk to the 760, and the development of the levels below the 600 is being carried out from this shaft.

Output.—The output of blue ground was 359,470 loads

Influx of Water.—Owing to the torrents of rain on January 11th, there was a sudden influx of water into the underground working from the margin of the open mine which rushed down the ladder-ways with such force as to render the escape of some of those underground very difficult. Great credit is due to the manager and other officials for their exertions in the matter. A new drain has since been made by the various Mining Companies, in conjunction with the Mining Board, which will prevent a similar occurrence.

Standard Diamond Mining Company Limited .- Work was carried on by this Company until the 16th July, when it was closed down. Output.—The output was 195,721 loads of blue ground.

Area of Open Mine. - The area of the open mine is about 41 acres.

Claims and Assessment.—According to the assessment framed in November, 1898, for the year 1898-'99, the number of claims was 1,669 and the assessment £738,910.

Wages. - Wages to white men ranged from £4 to £6 per week, and to

Kafirs 20s. per week, in Compounds.

Labour. -- The daily average number of persons employed in and about the mines and on the floors, according to returns furnished, was: Underground, 29 white and 325 coloured; on surface and open works, 72 white and 392 coloured; total 818.

Accidents.—There were 22 accidents reported from Bultfontein Mine in 1898, by which 5 natives were killed and 18 injuired.

The following table gives particulars of these accidents:—

# Accidents in Bultfontein Mine in 1898.

Cause of Accident.		No. of Separate Accidents.	No. of	Persons lled.	No of Persons injured.	
		Accidents.	White.	Coloured.	White.	Coloured.
Underground.			1.7			
Falls of ground Falling down pass Fall from ladder Machinary in shaft Blasting	•••	10 2 1 3 1		2  1		11  1 3 
		17		3	•••	
SURFACE AND OPEN WORKS.						
On tramways or by trucks Falls of ground Machinery		1 3 1		 1 1		1 2 
		5	****	2		3
Total	•••	22		5	•••	18

# PREMIER MINE (WESSELTON).

Work at the Premier Mine was carried on upon a large scale during the year, mainly at the 125-feet level, above which a face of blue ground, about 50 feet in height, is being worked. Another level, 50 feet deeper, is being opened out, from below which it is not intended to hoist the blue ground by the present incline. A bore-hole is being put down to test the strata on the East side of the mine, where a large shaft will probably be sunk.

Output.—The output was 1,684,812 loads of blue ground; at present it averages over 7,000 loads per day. Floating reef, or waste ground, to the extent of 226,160 loads, was also taken out of the mine. The floating reef

is rapidly being cut out in depth by the blue ground.

Water.—The water pumped averaged 35,682 gallons per hour, compared with 40,668 for the previous year.

Size of Mine.—The area of the mine is equal to about 1,162 claims. Cattle.—The average daily number of horses and mules employed was 210.

Labour.—The average number of persons daily employed is returned as 213 white and 1,522 coloured; total 1,735.

Accidents.—There were 38 accidents reported from the Premier Mine during the year, by which 43 persons suffered. Of these 3 were killed on the spot or fatally injured.

The following table gives particulars of these accidents:—

# Accidents at Premier Mine in 1898.

Cause of Accident.		No. of Separate	No. of Persons killed.		No. of Persons injured.		
			Accidents.	White.	Coloured.	White.	Coloured
SURFACE AND	OPEN WORKS.						
Falls of ground On tramways or by Falling down open Miscellaneous Blasting	trucks works Total		7 26 1 1 3 38		1 2	 1 1 1 	7 25  5 

### KAMFERSDAM MINE.

Output.—During the year the output was 515,803 loads of yellow ground, and 283,636 loads of blue. The yellow ground was broken from the 80 feet face and the blue from a level 40 feet deeper. They are now opening up another 40 feet level below this.

Labour.—The average number of persons daily employed is returned as 35 white and 350 coloured; total 385.

Accidents.—The following table gives particulars of the accidents

reported :-

### Accidents at Kamfersdam Mine in 1898.

Cause of Accident.	No. of Separate		No. of Persons killed.		No. of Persons injured.	
	Accidents.		Coloured.	White.	Coloured	
SURFACE AND OPEN WORKS.						
Falls of ground	3	7			3	
On tramways or by trucks	2				2	
Collapse of bridge at washing plant	11		2		1	
Machinery	1			•••	1	
Total	7		2		7	

# SUMMARY.

Explosives.—Returns have been kindly furnished of the quantities of explosives used in 1898, as follows:—Dynamite, 625 tons; Gelatine and Gelignite, 48 tons; total, 673 tons.

Labour.—The average number of persons daily employed in 1898, according to returns furnished, was:—Underground, 425 white, 4,040 coloured = 4,465; on surface and open works, 1,565 white, 6,253 coloured = 7,818; total, 1,990 white, and 10,293 coloured = 12,283.

Nationalities.—As far as can be ascertained the percentage of nationalities of white employes is as follows:—At De Beers workshops, where a considerable number of mechanics is employed, it is, English, 42·5; Scotch, 18·5; Irish, 2·9; Colonial, 31; European, 2·9; American, 1·2; Australasian, 1; = 100. The percentage of those employed elsewhere is, English 44·5; Scotch, 7·3; Irish, 6·5; Colonial, 38·3; European, 2; American, 0·4; Australasian, 1; = 100.

Accidents.—There were 204 accidents reported during 1898, from which 252 persons suffered; of these 52 were killed on the spot or fatally injured. The following table gives particulars of these accidents:—

Accidents in 1898.

Cause of Accident.	No. of Separate		Persons led.		Persons ured.
	Accidents.	White.	Coloured.	White.	Coloured.
Underground.			and the second		
Mud-rushes	4		13		2
Falls of ground	60	•••	8	5	51
Whilst ascending or descending shafts				0	01
by machinery	3		6	2	16
Machinery in shaft	4		1		3
Ground falling down shafts	2		1		1
Timber falling down shaft	1	Clare of the		1	
Ground falling down pass	1				1
Timber falling down pass	1				ī
Falls from ladders	11		1		10
Falling down passes	4		3	1	1
On tramways or by trucks	9				9
Miscellaneous	2				2
Blasting	6		3		7
SURFACE AND OPEN WORKS.	108		36	8	104
COMPAGE AND OTEN WORKS.	16 18 18 18	J		- 6	
Falls of ground and debris	17		5		71
On tramways or by trucks	61		5 6		14
Machinery	7		1	8	47
Collapse of bridge at washing plant	1		2	•••	6
Falling down open works	1 1		4	1	1
Miscellaneous	5			2	9
Blasting	4	***	2		3 6
		.,.	4		0
	96		16	11	77
Total	204		52	19	181

The following table shows the death-rate from accidents per 1,000 persons employed:—

	Death-rate p	er 1,000 person	ns employed.
	White.	Coloured.	Total.
Underground On Surface and Open Works		8·910 2·558	8·062 2·046
Total		5.052	4.233

This is higher than the previous year, which was probably the lowest we ever had, but the excess is due to the greater number of deaths from mud-rushes, which was 13 in 1898, as against 2 in 1897.

I am very glad to say that there was no death from accident amongst the white employes during the year.

The percentage of natives employed underground was 90.5, and above

ground 80.

In his introduction to the last part of the General Report and Statistics of Mines and Quarries for 1897, just published by the Home Office, which consists chiefly of Colonial and Foreign statistics, Dr. C. Le Neve Foster makes the following very appropriate remarks respecting the high death-rates in the mines of South Africa:—

"In explanation of the high death-rates prevailing in the diamond and gold mines of South Africa, the nature of the working population must be recollected. Many of the workmen are natives, more or less new to the industry, ignorant of the dangers which threaten them, utterly devoid of fear, and often imperfectly acquainted with the language of their superiors. Where such conditions prevail, one must not be surprised at death-rates very largely exceeding those of more civilised miners with hereditary instincts and life-long training which act as important safe-guards in their vocation."

### UNDERGROUND.

There were 36 natives killed underground, including 13 by mud-rushes

and 8 by falls of ground.

Mud-Rushes.—There were several mud-rushes at De Beers mine during the year, of varying extent, and occurring at nearly all the levels from the 840 to the 1,160. Of these three were unfortunately attended with loss of life. The first was on the 12th April at the 1,040 when two natives were buried. They were filling blue at the mouth of a chamber when the mud rushed out with great force, knocking about the trucks and timbers in all directions. There were no indications of danger, the place being perfectly dry.

The next of these was on the 28th May at the 1,080, by which 8 natives lost their lives. The chamber from which the mud came had been examined by the contractor a few minutes previously and there were no signs of mud. It came with great force filling about 1,500 feet of tunnels. The other mudrush attended with fatal results was at the 1,080 on the 8th October when 11 natives were stopped in. Of these 8 were rescued on the 11th October, having been confined 74 hours, but the bodies of the remaining 3 were afterwards found buried in the mud. On this occasion 1,400 feet of tunnels were filled,

fortunately with black shale which did very little damage to the timbering, and enabled good speed to be made in rescuing the 8 natives referred to. I may say that on each of these three occasions there were ample means of escape, and the electric light was within a short distance, otherwise the loss of life would have been far greater.

Considering the number of mud-rushes during the year it is fortunate that there were no more fatal accidents, but constant attention is paid by the officials and miners generally in guarding against them. Generally these mud-rushes take place without any warning, but whenever there are any indications the men are withdrawn. For instance there was a very extensive mud-rush at the 1,080 on the 15th July, filling over 1,800 feet of tunnels, accompanied by a large quantity of water, but the level showed signs of dampness on the previous shift and all the men were withdrawn. There were some very narrow escapes however and splendid rescue work was done, reflecting the greatest credit on those engaged in it. For instance on the 18th May there was a large mud rush at the 1,120, filling over 1,100 feet of tunnelling, and stopping in 11 natives, who were rescued, 74 hours afterwards, looking very well considering their lengthy confinement. One of the most wonderful escapes I have known was at the 960 on the 27th July. Two natives were filling trucks when the mud rushed out and they ran away. The one who escaped reported that his partner, who was just behind, fell down at the crossing and was buried in the mud. At the crossing there was an empty truck which must have been turned over on its side by the mud, and the native must have fallen or been knocked down close to this truck. At the same moment the timbers at the crossing must have been knocked out, falling upon the truck and covering the native. When he was rescued he was jammed against the bottom of the truck, his left arm being around the axle. He was covered with the timbers that had fallen from the sides and roof at the crossing, and more than 400 tons of mud must have passed over him. He was 6 feet high, but coiled up in a space 4 feet long by 2 feet wide, with a height, close to truck, of 18 inches, sloping away to nothing at the opposite side, in all about 6 cubic feet of space, in which he was confined 42 hours before he was discovered, and another 3 hours before he could be got out. No air could have reached him through the mud.

I have already described, in this and previous reports, the large amount of work that has been done with a view to prevent these mud-rushes. The tunnels in the rock close to the blue, on the south and east sides of the 1,000, have been completed but no water was struck, and seven bore-holes have been put up in the back of this tunnel, from 90 to 100 feet each, without tapping any water. I have always been of opinion that the water causing the mud-rushes finds its way into the mine from the shales above the melaphyre, frequently much increased by the heavy rains, and that if it could be taken up or intercepted at De Beers it would stop the mud-rushes, as has been the case at Kimberley mine, where there has not been a single mudrush since the water tunnel was completed, although previously they were very frequent and caused considerable loss of life. But a reference to the sections appended to this report (which have been kindly farnished by the General Manager of De Beers), will show the difference in the two mines with respect to the water tunnels. It will be seen that whilst at Kimberley the loose "reef" in the open mine is from 300 to 400 feet below the melaphyre, which is exposed all round the mine, giving every facility for detecting the feeders of water and taking up same, at De Beers the melaphyre is covered by the large quantity of reef which keeps falling from the sides of the mine. Two good feeders of water have been met with in the De Beers water-tunnel, one at the old Oriental Shaft and the other on the opposite side of the mine, and as I have already

stated a series of rises are being put up from the tunnel to intercept any water

which may be met with.

Falls of ground.—It will be observed that no less than 60 accidents were reported from falls of ground, by which 8 natives were killed and 5 white men and 51 natives injured. I have often described the treacherous nature of the ground, and the great need there is for constant attention on behalf of those in charge of the work. Generally speaking, I believe, great care is taken.

Whilst ascending or descending shafts by machinery.—Next to mud-rushes the most serious accident was that at No. 1 Shaft at De Beers at 1:40 p.m. on the 7th June. The man cage, with 20 natives, was being lowered to the 800 ft. level. The engine driver stated at the inquest:—"The engine was working properly. I did not apply steam; steam is not necessary for lowering. When the cage was 150 feet from the 800 I applied the lever to the reversing engine as usual to let the cage down easily, but something stuck and I could not stop the descent of the cage. The piston seemed to be jammed in the cylinder. I cannot account for the accident. When I found out that the engine would not act I called to those in the engine house to leave but I remained at the engine and applied the brakes." A careful examination of the engine was then made by the engineers, at which I was present, and I can corroborate the following evidence given at the Inquest by

the Chief Engineer of the Company:-

"The accident occurred at 1.40 p.m. Upon my arrival at 2.40, I found the west cage hanging in the head gear close to the shears, but not damaged. The engines were in the usual condition, excepting that the steam chest covers were both off. I examined the slide valves to see (1) had the adjusting nuts come loose? (2) was the valve or seat in bad order? (3) had any parts of the engines worked loose and caught in the valves? After careful inspection the valves were found in perfect order, everything being secure with no indication of cutting or scoring from foreign matter. The links and eccentrics were examined, found secure and in good order. The reverse engine was tried, and found to work as usual. The pistons of both engines were then 'drawn,' both being found secure. In the right hand engine one of the piston rings was found to be broken, a piece about  $2\frac{1}{2}$  inches long being separated, but in its proper place in the recess turned in the piston. The left hand piston was found in good order. Both pistons were replaced after examining the cylinders for any loose pieces, but none were found. The reverse engine was then taken to pieces and carefully examined; the steam cylinder and piston were found in good order, and no broken pieces or foreign matter were found. The cataract piston and cylinder were found in good order. A small score or groove was found in the cylinder extending from the upper to the lower part and a similar one on the piston. These did not appear to be of recent origin. The cup leathers were in good working order. The starting valve was then examined and found in good order, having a true face and being securely fastened to the working lever. After testing all ports and oil passages a new cup leather was put on the cataract piston and the engine put together, after which it was tested and worked as usual. The probability of priming was then investigated, but this could hardly occur. As the engine was lowering a load no steam would be used, except to check the engines when approaching the bottom. The brakes were examined and found in good order. After this, the engines were tested and found to work as usual."

Under examination the Engineer further stated:—"The breakage of the piston ring in the right-hand engine had no deleterious effect. The piece was not out. The score or groove in the cataract cylinder and piston might have caused the engine to act sluggishly, to hang for a moment, and that might have caused the engine to run further than he (the driver) intended. The leather of the lower cup of this piston was somewhat wore, and if the leather puckered, it would have the same effect as the scoring, i.e.,

to hang the engine a little bit. There was no possibility of anything from the top entering the cataract: it was practically air-tight; witness found no other flaw. The engine was in first-class order, but it might have stuck. The engine-man was a good and careful man, and had a good record. If the engine-man said the engine stuck, witness could not contradict him."

The Acting General Manager of De Beers, who is himself a mechanical engineer, said he made inspection at the same time as the witness, and was of exactly the same opinion as he. The reversing engine responded to the lever when tried. It might have refused to act momentarily at the time of the accident, but was in excellent working order immediately afterwards.

All those in the cage were more or less seriously injured, and five died

from the effects of their injuries.

The other accident under this head was at Kimberley Mine on the 23rd May. By some means a native fell out of the cage whilst ascending the rock shaft. The "gate" at the entrance of the cage appears to have been in its proper place, and it is difficult to conceive how the accident could have happened. The most searching enquiries were made both before and at the inquest, and no satisfactory information could be obtained.

# SURFACE AND OPEN WORKS.

Falls of Ground and Debris.—There were 5 natives killed and 14 injured from this cause. The debris or tailings is particularly treacherous, and it is most difficult to get the heaps properly worked, i.e., by terraces or at an angle of safety.

On tramways or by trucks.—There were no less than 61 accidents from this cause, of which 6 were fatal. The number is very large but it must be borne in mind that there is an enormous amount of tramming in these mines. Generally speaking they were pure accidents, but there were some cases of carelessness.

Collapse of bridge at Washing plant.—This accident was at Kamfersdam mine on the 4th January when 2 natives were killed and 1 injured. The bridge in question is situated at the top of the washing plant, and from it the ground is dumped on to the screens. Over the far end of the bridge, beyond the washing plant, is dumped the waste rock picked out of the yellow ground. This end was supported by two uprights, resting on the large heap of waste rock. There had been heavy rains shortly before the accident which probably caused the subsidence which took place in the side of the heap on which the uprights were resting, and occasioned the collapse of the end of the bridge referred to. This accident shows how unsafe it is to fix uprights, carrying a bridge or anything of the kind, in the manner described.

Blasting.—The blasting accidents are described in the report of the Inspector of Explosives.

The other accidents do not call for special description.

### GENERAL REMARKS.

St. John Ambulance Classes.—The great value of the instruction given at these classes was strikingly proved by the cage accident in No. 1 shaft at De Beers on the 7th June, which I have already described. All the injured were skilfully attended to at once by members of these classes who were employed underground, and the doctors wrote to testify that, but for this attention, several more would have died. On previous occasions lives have been saved in the same way. For a long while I have done my best to encourage these classes, and the employment of persons holding St. John Ambulance certificates, both in the Diamond and Coal mines, and I should like to see the employment of a certain number of such persons made compulsory in all mines.

Automatic Diamond Sorter.—I described in my last report the new automatic sorter which was then being tried at De Beers. I am pleased to say that it has been a very great success, and has effected a great saving in the cost of sorting, as well as doing the work more efficiently. Fifteen large machines are now at work at De Beers and the number of sorters, both white and coloured, has been very considerably reduced.

and coloured, has been very considerably reduced.

Working Expenses at the Mines.—The comparative costs of the working expenses for the 4 months ending October, at Kimberley, De Beers, and the Premier Mines, according to the figures given in the General Manager's Report, was as follows:—Kimberley 6s. 6½d. per load, De Beers 6s. 7d., and the Premier Mine 2s. 1½d. The latter, of course, is open working.

Report, was as follows:—Kimberley 6s.  $6\frac{1}{2}$ d. per load, De Beers 6s. 7d., and the Premier Mine 2s.  $1\frac{1}{2}$ d. The latter, of course, is open working.

\*Record Hoisting.\*—During the month of November, in 26 working days, 208,013 loads of blue and 11,992 loads of reef, a total of 220,005 loads, were hoisted from the 1,200ft. level at De Beers rock shaft. The best week was 52,775 loads, day 10,074 loads, and shift of 8 hours 3,416 loads. The load weighs 1,600lbs.

Rainfall.—The following has been the rainfall in Kimberley during the last seven years:—1892, 12.951 inches; 1893, 15.371 inches; 1894, 24.931 inches; 1895, 15.5 inches; 1896, 20 inches; 1897, 14 inches; and 1898, 18 inches.

Machinery.—I annex a return of machinery at the various mines in 1898. (Annexure 1).

# COAL MINES.

As I have been instructed to prepare a detailed report on the coal mines I shall simply refer now to the output, number of persons employed, and accidents during the year.

For convenience of reference I have divided the coal mines into the following districts:—

A. Indwe Mine.

B. (Cyphergat) Cyphergat, Wallsend, and Fairview Companies; with the Victoria Collieries, and Klaap Kloof Mine at Sterkstroom.

C. (Molteno) Molteno Mines, No. 1 and 2, Sieradzfontein Mine, and Penshate Collieries.

D. Romansfontein Mine, Cape Collieries, Contat's Collieries, and the Mines on Sandfontein.

Output and Persons employed at the Coal Mines during the year 1898.

				Persons or	dinarily	y emplo	yed dur	ing the yea	ur.	
	Coal	Underground.				Above ground.				
District.	Wrought in Tons of 2,000 lbs.			Mark at	Ma	iles.	Fe	males.		Total under-ground
		White.	Coloured.	Total under-ground.	White.	Coloured.	White.	Coloured.	Total above ground.	ground and above ground.
A B C D	107,233 47,304 27,119 10,202	41 22 11 21	781 751 354 397	822 773 365 418	21 10 10 11	99 55 49 63		141 25 14 104	261 90 73 178	1,083 863 438 596
Totals	191,858	95	2,283	2,378	$-{52}$	266		284	602	2,980

Fire Clay.—The output of fire clay was 1,240 tons from Cyphergat. The output for 1897 was 127,513 tons of coal, and 440 tons of fire clay, and the number of persons employed, 2,192.

Accidents.—During the year 18 accidents were reported from the various coal mines, by which 22 persons suffered. Of these 11 were killed on the spot, or fatally injured. The following table gives particulars of these accidents: these accidents:-

Cause of Accident.	No. of Separate	kil	Persons led.	No. of Persons injured.	
	Accidents.	White.	Coloured.	White.	Coloured.
Underground.					
Falls of roof Falls of coal	6 4		4 1	•••	3 3
Blasting Whilst ascending shaft by machinery	2 1	1	$\frac{1}{1}$	1	2
On Surface.	13	1	7	1	8
On tramways or by trucks Miscellaneous	3 2		3	 1	1
	5		3	1	1
Total	18	1	16	2	9

The death-rate from accidents, per 1,000 persons employed, was as follows :-

		Death-rate	per 1,000 persons	employed.
		White.	Coloured.	Total.
Underground On surface	•••	 10.526	3·066 5·454	3·364 4·983
	Total	 6.802	3.526	3.691

The percentage of natives employed underground was 96, and on surface 91.3.

Several of the accidents would be classed as preventible accidents, and I shall be much disappointed if the death-rate is not lower in future. All the accidents, with the exception of 6 non-fatal ones, were at the Indwe mine.

### UNDERGROUND.

Falls of Roof and Coal. - Five natives were killed by these accidents, two by comparatively small pieces falling from the roof, and two by a large fall and one by a fall of coal. The roof at Indwe is hard sandstone, and apparently safe, but in places it is very treacherous, and falls without any

warning. More attention is now being paid to the "packing," and more props are being used, and I hope there will be fewer accidents in future.

Blasting.—By an accident at Indwe on the 19th August 1 white man and a native were fatally injured. So far as I could ascertain the white man had been preparing his charges of compressed powder at one of the chests in the mine, used for keeping a day's requirements, and whilst doing this his lamp, in which oil was burnt, had been fixed on a prop, several feet away. Having completed this he stuck his lamp in his cap and was going to his working place, when it occurred to him that he had not locked the chest, and be returned for that purpose. On stooping to close the cover his lamp fell from his cap into the chest and ignited the powder, severely burning him. The native happened to be passing at the time and was not thought to be much injured, but he died some time afterwards. It is against the rules to use naked lights whilst manipulating explosives, and I had previously called the attention of the mine manager to this fact, and lanterns had been ordered, it seems, but had not arrived at the time of the accident. Lanterns are now used for this work, except where they have electric light, and the chests are placed in magazines constructed away from the travelling roads.

Whilst ascending shaft by machinery.—This was an accident at Indwe on the 26th June, at a small shaft being sunk for ventilation. The deceased was being drawn to surface and, instead of getting into the bucket, stood upon it, and slipped off. There were standing wires in the shaft, and I

could not find that the engine had been run too fast.

# ON SURFACE.

On tranways or by trucks .- There were 3 accidents at Indwe coming under this class, by which 3 natives were killed. The first was on the 8th February, when a native crossed in front of descending trucks, on the incline leading from the part of the mine known as the Green mine down to the The second was also at the Green mine, on the 2nd September. The deceased was employed with another boy, under a white man, moving the railway trucks forward as they were required for filling from the screensthe line is a siding from the main line, and only one truck is filled at the same time. He had no business whatever in front of the truck, but a sudden gust of wind sprang up and he went in front of the truck for shelter; just then the force of the wind caused an empty truck to run against the truck which was being filled and the deceased was knocked under the bogey, between the rails. The other accident was at the "Byrne" portion of the mine, on the 7th November, when a native woman was killed by runaway trucks at the bottom of the incline, near the screen. It was customary to couple together 6 trucks at a time on the top and then send them down the incline, 6 empty trucks being, at the same time, brought up on the other line, and the speed was regulated by a brake at the top of the incline. A white man is always in charge of this work. On the occasion in question, when the trucks were pushed on to the incline, the four front trucks rushed down the line leaving two coupled on to the rope. I made careful enquiries into the mater and I do not think the four trucks were ever coupled on to the two behind, but the evidence at the inquest on the 10th and 19th January was not conclusive on this point, as 3 of the natives concerned had left and could not be found.

I might add that the deceased had no business to be crossing where she was when she met with the accident.

THOS. QUENTRALL, Inspector of Mines.

Inspector of Mines Office, Kimberley, March, 1899.

ANNEXURE 1 TO THE REPORT OF THE INSPECTOR OF MINES, KIMBERLEY.

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Grand Totals.		28	3,020		25	4,136		14	694		46	1,984		113	9,834	
Kamfersdam Mine.		1	12		2	1,000			:		:	:		60	1,012	
Premier Mine.			30		က	316		23	140		1	338		13	824	
Otto's Kopje Mine			20		2	265		П	20		:			4	305	
Bultfontein Mine.		4	588		-	09		23	130		1	12		000	190	
De Beer's Mine and Workshops.		12	1,457		11	1,885		9	234		28	1,197		57	4,773	
Kimberley Mine.		6	913		9	019		ಎಂ	170		10	437		28	2,130	
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	Winding Engines	Number	Indicated Horse-power	Washing Engines :-	Number	Indicated Horse-power	Pumping Engines:	Number	Indicated Horse-power	Other Mining Engines :-	Number	Indicated Horse-power	Total Lugines at each Mine:	Number	Indicated Horse-power	

# ANNEXURE 2 TO THE REPORT OF THE INSPECTOR OF MINES, KIMBERLEY.

SIR,—Subjoined I have the honour to submit to you a return shewing the number of persons killed and injured by the use of explosives in the mines during the year ended 31st December, 1898.

### KIMBERLEY MINE.

Europeans: Nil. Natives: 2 killed, 7 injured.

Two of these natives were injured through the apparent negligence of the miner in charge who was summoned under the De Beers Special Rules, but these Special Rules not having been promulgated in the *Government Gazette* had no legal force and the case was dismissed by the Resident Magistrate.

One native was killed and three injured through the native, who was killed, drilling in an unexploded hole. He was put to drill with the injured natives in a chamber and in looking about discovered what proved to be an unexploded hole, near to the place where he was instructed to drill, and in order to save himself labour commenced to drill in it when an explosion occurred. At the inquest held before the Resident Magistrate the two Europeans, who started the natives to drill, said they carefully examined the place but failed to discover this unexploded hole, and the injured natives corroborated their statement.

One native was slightly injured whilst picking in the bottom of a tunnel through a small explosion caused by his pick striking a detonator or small portion of dynamite left when the tunnel was driven a long time before the accident.

One native was killed whilst assisting to blast in a pass which was being straightened. After lighting the fuse the European went down the pass to guard the bottom and the deceased went up to guard the pass at the top, but as he was getting out he accidentally fell back down the pass on to the ledge where the charge was placed and was killed when it exploded.

One native was injured through a stone from a blast in a large chamber being driven across the chamber and ricocheting down a tunnel striking the native who was standing round a corner in what was considered to be a safe place.

### BULTFONTEIN MINE.

Europeans: Nil. Natives: 1 killed.

This native was killed through disobeying orders by taking refuge in a truck, where he was struck by a piece of blue ground, instead of going into the shelter-house during blasting operations.

### PREMIER MINE.

Europeans: Nil. Natives: 2 killed, 5 injured.

One native was killed through disobeying orders, as he, with others, pushed past the guard at the outlet of the tunnel leading from the compound to the mine, went into the open workings before blasting had ceased, and was killed by being struck with a piece of blue ground from a blast.

One native was killed during blasting. He and others were placed for safety in a tunnel, and as he was sitting down a piece of blue ground bounded in through the entrance, striking him on the chest as he was sitting down, and killing him on the spot.

down, and killing him on the spot.

The five natives were injured at one time by the accidental explosion of an old charge, which was not known to exist, their injuries fortunately being very slight.

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# OTTO'S KOPJE MINE.

Europeans: Nil. Natives: 1 injured.
Injured through coming out of the shelter-house during blasting before all the charges had exploded.

DE BEERS MINE.

Nil.

DUTOITSPAN MINE.

Nil.

KAMFERSDAM MINE.

Nil.

SAINT AUGUSTINE'S MINE.

Nil.

I have, &c.,

R. A. SKELDING,

Inspector of Explosives.

# REPORT OF THE INSPECTOR OF CLAIMS, BARKLY WEST, FOR THE YEAR 1898.

In this report the usual annexures are put in, namely, Recapitulation of Mines and Diggings in the Barkly West Division, including the Alluvial Diggings in the Kimberley Division, and a detailed statement of Revenue received during the year.

# REVENUE FOR 1898.

Alluvial Licences		£2,326		0
Leicester Mine Licences		1,937	10	0
Smith's Prospect Mine Licences		1,682	0	0
Otto's Prospect Mine Licences		898	0	0
Miners' Certificates		485	5	0
Transfers	***	58	2	6
Protection Certificates	• • •	0	8	0
		£7,387	5	6

The following amounts were also collected during the year on behalf of the Proprietors on account of Rent for Depositing Sites, re claims in:—

Smith's Prospect Mine Otto's Prospect Mine	 •••	3,364 1,796	0
Otto s 110speed mine		£9,035	 

It will be noted on reference to the foregoing statement that there is a shortfall in the revenue collected for this year, as compared with that for year 1897, of £4,539 5s. 6d. This is in great measure owing to the falling off in the revenue of the Leicester Mine, which in 1897 realized—as for Licence monies £5,590, in 1898 only £1,937 10s. 0d., being a decrease of just £3,652 10s. accounted for by the present unsettled state of affairs connected with this Mine; the fact that all work in it ceased in April last, and the general uncertainty of its future. There is also a decrease in Transfer duty of £575 17s. 6d.; this of course (under circumstances) was only to be expected and needs no comment.

The revenue from licences in the Alluvial Diggings also shows a decrease of £527 15s., partly owing to the Christiana Diggings having engaged the attention of a considerable number of diggers, partly to the high price of cereals and partly to the general business depression throughout the district: the last few months however have seen diggers gradually returning, and the Christiana diggings do not now hold that high place in their imagination they once did.

The approximate weight and value of diamonds imported into Kimberley from Barkly West during the year 1898 (data kindly supplied by the Detective Department) were  $52,555\frac{1}{4}$  carats, value £107,791 19s. 6d., to which add  $2,667\frac{1}{4}$  carats, value £5,968 10s. from unproclaimed riparian farms in the Kimberley Division, making a grand total of  $55,222\frac{1}{2}$  carats, value £113,460 9s. 6d.

### NEW MINES.

No new mines have been proclaimed during the year.

### ALLUVIAL DIGGINGS.

No new alluvial diggings have been proclaimed during the year, the only alteration in existing alluvial being the extension North and West of the proclaimed digging "Jonas Kopje" by Proc. 327 of 11/11/98.

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### MINES.

# THE LEICESTER MINE.

The Leicester Consolidated Diamond Mines Ld. is the only Company that has consistently worked its holding (work by other companies having long since been discontinued). Out of the 702 claims belonging to this company about 55 claims, on the east end of the mine, have been worked, under the open working system, down to the 100 ft. level, two passes only being used. The inclined shaft is 800 ft. in length and 5 × 6. The ground is conveyed by means of an endless chain haulage which runs through 2 tunnels each 750 ft. long and 5 × 6, to the end of the inclined shaft, and raised by means of a similar haulage to the surface. The ground treated direct by means of 2 sets of triple rolls, crushing to  $\frac{5}{8}$  in. is raised to 8 cylinders, thence into 8 14ft. pans; the elevators in use are each 80 ft. high.

The power for driving the washing plant and haulages is furnished by a 500 h.p. coupled condensing engine and 4 multitubalar boilers each 5' 6"

dia. and 12' long working at 120 lbs. per \(\subseteq\)".

This company ceased work in April, \(\frac{1}{898}\), in order to arrange a reconstruction scheme. In the absence of any information on this subject I am not in a position to say whether this scheme is likely to arrive at completion, and, if so, with what chance of ultimate success.

## SMITH'S PROSPECT MINE.

In this mine work, in the holding of the Frank Smith Diamond Mines Ld., has progressed steadily; the embankment to beyond the 200 yards radius has been lengthened, heightened and widened and is now in thorough working order. The inclined cutting into the mine, securely timbered, has reached a depth of 60 ft., the main tunnels (3) are being further extended; in all the mine, there are 820 ft. of tunnelling 6 ft. by 5, laid with rails: the usual passes are in use providing ground for treatment. The trucks are brought out of the mine, up the inclined cutting just mentioned and the ground washed direct in a gear consisting of 2 12 ft. rotary pans, with elevators (2) wash up Pulsator and other accessories, driven from a 16 h.p. Marshall's Compound engine and a Marshall's 24 h.p. engine, with a 6 h.p. engine for dealing with mine water. About 1,000 loads of ground are hauled daily. Labour is plentiful, the company employing on an average 15 Europeans and 115 natives. It is assuring to hear that the average yield of diamonds (which are of excellent quality) improves as the mine deepens.

### OTTO'S PROSPECT MINE.

The only work being done in this mine is by the Weltevreden Estate and Diamond Mining Company Ld., which holds 118 out of the whole number of 172 claims in the mine. This company worked throughout the year in making preparations for washing; great difficulties had to be contended with for the reason that the claims at the southern end of their block where it was intended to make an ordinary open incline, were encumbered with boulders separated by greasy veins, which make the ground extremely treacherous. This consequently necessitated the making of a costly incline tunnel, the timbering of which appears substantial and It is intended to haul the ground by mechanical haulage; the distance from the bottom of the incline tunnel to the end of the embankment, at the foot of which the gear is erected, is about 300 yards; the gear, small but complete, consists of a rock crusher, 2 pairs of crushing rolls, 2 12 ft. pans, and the usual accessories, driven by a double expansion Fowler engine. Water is pumped from a distance of about  $2\frac{1}{2}$  miles into a large reservoir, placed high enough to supply the machinery by gravitation. The difficulties mentioned have delayed the commencement of washing operations many months, but it is anticipated that a start will be made some time in February, 1899.

# ABANDONED MINES.

Wrigley's Kopje, at present unleased. Victoria Mine, at present unleased. Washington Mine, at present unleased.

# ABANDONED MINES, PORTIONS OF WHICH ARE LEASED.

# RUSSELL MINE.

Two morgen still leased to Mr. Solomon James, in which however no work has been done during the year.

### BORRELL'S KOPJE MINE.

Mr. E. J. Carlyon still holds 2 morgen under lease. No work has been done during the year.

### LEASED MINES.

### NEWLANDS Nos. I AND II.

I have nothing to add to my former report as regards Newlands No. I, as since January, 1898, the attention of the company has been directed to Newlands No. II. Here the sinking of a new shaft, some distance from the open workings, was commenced early in the year, and for several months satisfactory progress was made. Unforeseen difficulties however then retarded work, and at a depth of 265 ft. hard rock was struck which necessitated the acquiring by the Company of an air drill plant at an outlay of about £1,000. Since then work proceeded steadily until delayed at a depth of 310 ft. by strong water veins being encountered with which the pump in use was wholly unable to cope. A more powerful pump having been secured, work was again resumed, and by the end of the year a depth of 325 ft. was reached. This shaft is solidly timbered with 8 x 8 pitch pine to a depth of 270 feet; and it is the intention to timber as the shaft deepens, until a depth of 600 ft. is reached, when connection will be made with an air and escape shaft also in the course of sinking, and it is anticipated that by May or June of 1899 at latest the work of hauling and washing the diamondiferous ground will be commenced. The company have also erected a large Compound 132 ft. square with double corrugated sheet iron fence. There it also a bakery, butchery and store attached so that the natives have at their convenience all the necessaries they may require. The additions to the company's machinery during the year cemprise one air compresser and 3 rock drills, one sinking pump with a capacity of 2,000 gallons per hour, one sinking pump with a capacity of 4,000 gallons per hour and 2,000 extra feet of piping. Towards the latter end of the year, labour (by the kind assistance of Mr. Hall, Inspector of Natives,) became fairly plentiful, at wages of 12s. 6d. per

week per boy for open work and 18s. per week underground work. It is worthy of remark that no accident has occurred during this company's operations.

# ACCIDENTS.

In Leicester Mine 5 accidents occurred, one of which was fatal; the remaining four were not of a serious nature.

In Smith's Prospect Mine, one accident.

Otto's Prospect Mine, one accident occurred which proved fatal.

W. FRANKLIN,

Inspector of Claims.

Inspector of Claims Office, Barkly West, 1st February, 1899.

# BARKLY WEST.

RETURN showing amount of Revenue received from Mines and Diggings during the Year 1898.

Name of Mine or Digging.	Amount of Digers' Licence		A mount of Miners' Certificates.	Total.	
	£ s. (	d.	£ s. d.	£ s.	d.
Wedburg or Robinson's Kopje No. 2		0	20 10 0	100 10	0
Robinson's Kopje No. 1		0	18 10 0	138 10	0
Waldeck's Plant		0	27 0 0	243 0	0
Keiskanna South	77 10	0	17 10 0	95 0	0
Niekerk's Rush		0	14 15 0	116 5	0
Brady's Prospect		0	2 10 0	7 0	0
Jonas Kopje	A MARKET AND A STATE OF THE STA	0	8 5 0	55 15	0
Ward Hope		0	0 5 0	4 0	0
Welsh's Prospect	0 10	U	0 0 0	4 0	U
Hebron	247 0	0	69 5 0	316 5	0
Klipdam		0	95 10 0	503 0	0
Holpan No. 1.		0	30 10 0	303 0	U
Holpan No. 2.		0	46 5 0	223 10	0
Holpan No. 2	93 15	6	40 0	220 10	U
Holpan No. 3		0	3 15 0	06 15	0
Van Zoelen's Laagte	5 0	0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	26 15 6 5	0
Jacob's Prospect		0	14 15 0	83 15	
Scholtz Prospect.	82 10	0	11 15 0		0
Snyder's Rush		0	45 15 0	94 5	0
Klipdrift	17 0	0		247 15	0
Good Hope		0		20 0	0
Bad Hope	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0	5 10 0	37 0	0
Gong Gong		()		109 0	0
Union Kopje		6		60 15	0
Keiskanna North	16 10 16 0	0	$\begin{bmatrix} 3 & 5 & 0 \\ -3 & 0 & 0 \end{bmatrix}$	19 15	0
Forlorn Hope		0		19 0	0
Longlands Rush Esterhuizen's Rush	98 10	0	10 1 10	123 0	0
	75 0	0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 15	0
Winter's Rush		0		84 10	0
Delport's Hope	55 0			67 0	0
Leicester Mine	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	()	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1942 10	0
Smith's Prospect Mine	898 0	0	0 15 0	1685 5	0
Otto's Prospect Mine	090 0	U	0 10 0	898 15	0
	6843 10	0	485 5 0	7328 15	0
Protection Certificates.,	0040 10	U	100 0 0	0 8	0
m e c : c :	• •			58 2	6
Transfer Certificates	• •			00 2	0
Total				7387 5	6
Local	•			1001 0	U

In addition to the above, the following amounts were collected on behalf of Proprietors, on account of rent of Depositing Sites to Claims in the undermentioned Mines:—

		£	S.	d.	
Leicester Mine	 	 3875	0	0	
Smith's Prospect Mine	 	 £ 3875 3364 1796	0	0	
Otto's Prospect Mine	 	 1796	0	0	
					-
Total	 .,	 9035	0	0	

Inspector of Claims Office, Barkly West, January, 1899.

W. FRANKLIN, Inspector of Claims.

# Accidents at Leicester Mine during the Year 1898.

Cause of Accident.	No of Separate		Persons ared.	No. of kil	Persons led.
Cause of Accident.	Accidents.	White.	Coloured,	White.	Coloured.
SURFACE AND OPEN WORKINGS.  Machinery By Truck Fall of ground  Total	2 2 1 —————————5		2 2  4	1	

# Accidents at Smith's Prospect Mine during the Year 1898.

Cause of Accident,	No of Separate		Persons ared.		Persons led.
Charle of lectacon	Accidents.	White.	Coloured.	White.	Coloured.
SURFACE AND OPEN WORKINGS.					
By Truck Total	1		1	•••	

# Accidents at Otto's Prospect Mine during the Year 1898.

Cause of Accident.	No. of Separate	No. of inju	Persons ared.		Persons led.
	Accidents.	White.	Coloured.	White,	Coloured.
SURFACE AND OPEN WORKINGS.					
Fall of Ground	1			4	1
Total	*1			•••	1

W. FRANKLIN,
Inspector of Claims.

Inspector of Claims Office,
Barkly West, 1st February, 1899.

# BARKLY WEST.

CLASS I.-Mines and Diggings on Crown Lands.

[G. 32--'99.7

When locked and hy whom	When reaver and by whom.	2 morgen on 26.9.87 to Carl Droste- 2.8.3.84 to E. M. Litterand E. W. Heekrath. 2 ,, 12.5.96 to E. J. Carlyon. 2 ,, 15.5.96 to J. G. Croghan. 1 ,, 10.8.96 to E. J. Carlyon. 1 ,, 28.3.84 to E. J. Carlyon. 2 ,, 15.5.96 to J. G. G. Groghan. 1 ,, 10.8.96 to E. J. Carlyon. S.lomon James.
When and under what	Proclamation abandoned.	Proc. 259 of 28.11.84  S ill open  "" "" "" "" "" "" "" "" "" "" "" "" "
When and under what	Proclamation proclaimed.	Proc. 166 of 30.10.83  23 of 27.1.87  34 of 28.11.71  39 of 10.1.72  34 of 28.11.71  31 of 18.2.89  31 of 18.2.89  31 of 18.2.89
Sites.	Government.	Whole
Deposit Sites.	Government.	Whole Wh
icences.	Government.	Whole
Claim Licences.	Government.	Whole
OWIODIG GO GIVIN	MINE OR DIGGING.	Welsh's Prospect Mine (a)  Welsh's Prospect Hebron (b)  Klipdrift (c)  Forlorn Hope  Longland's Rush (d)  Esterhnizen's Rush Winter's Rope Washington Mine  Vashington Mine (e)  Jonas Kopje (f)

REMARKS-

(a) All leases cancelled with exception of 2 morgen leased to E. J. Carlyon on 12.5.96.
(b) Extended to all Alluvial Deposits on the Hebron Commonage by Proclamation 237 of 1887.
(c) Klipdrift as per Proclamation 89 of 10.1.72 extends on North Bank of Vaal River from Upper Klipdrift to Good Hope.
(d) Proclamation 35 of 8.12.71 also proclaims area between Winter's Rush and Delports Hope one mile north of Vaal River, as a Public Digging.
(e) Lease of 1 morgen to George Beet since cancelled.
(f) Jones Kopje extended North and West by Proclamation 327 of 11.11.98.

BARKLY WEST.—Continued.

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11.	
S II.—Mines and Diggings on Property	
SS 11.—	
ASS 11.—	
LASS II.	
ASS II.	

MINE OR DIGGING.  Government.  Victoria Mine (a) Whole	Claim Licences.		7.00				
·		Deposit Sites.	Sires.	When and under what	what	When and under what	
	Proprietor.	Government.	Proprietor.	Proclamation proclaimed.	aimed.	Proclamation abandoned.	When leased and by whom.
	Nil	Nil	Whole	Proc. 172 of 13.10.81	3,10,81	Proc. 4 of 4.1.84	1 morgen on 26.9.87 to Martin Broderick, 2 morgen on 26.9.87 to Carl Droste, re-
							mainder on 5.3.88 to George Kilgour. 3 morgen on 29.7.96 to Percy Johns
Newlands, No. I Mine (b)		ŝ.,	2	,, 191 of 17.11.81	7.11.81	" 19 of 24.1.84	1 morgen n 12.5.84 to George Paton; 2 morgen on 13.2.88 to James Murray.
							4 morgen on 26.5.96 to G. L. Trubenbach.
Newlands, No. II Mine ,,,	"		"	", 58 of	6.4.82	,, 37 of 25.2.89	1 morgen on 14.3.89 to G. A. M. Tapscott; 4 morgen on 27.5.96
Wrigley's Mine (c) Half	Half		5	,, 55 of 12.4.83	2.4.83	" 248 of 23.10.84	to G. L. Trubenbach.  2 morgen on 28.7.87 to Martin Broderick, 1 morgen on
					1- 7		14.11.87 to Martin Broderick. Whole mine leased to Wm. Haddock on 25.6.97.
Good Hope Whole Bad Hope	Nii :	No deposit sites	it sites	,, 34 of 28.11.71	3.11.71	Still open	
Gong Gông (d) Half Cantral Gong Gong (e)	Half ,,,	0 P		.01	3.11.71		

REMARKS-

(a) All leases cancelled.
(b) The 2 morgen leased to J. Murray since concelled. Both Newlands No. I and No. II are now in possession of the Newlands West Griqualand Diamond Mines Ltd.
(c) The 3 morgen leased to Martin Broderick since cancelled. Mr. Haddock failed to comply with provisions of tease, lease concelled.
(d) Old Gong Gong Hurther extended by Proclamation 223 of 1887.
(e) Gentral Gong Gong extended East and South by Proclamation 197 of 14.5.95, claims 60 x 30 ft. Size of claims in Central Gong Gong increased to 60 x 30 ft. by Proclamation 198 of 14.5.95.

CLASS II.—Mines and Diggings on Property with reservation of Minerals to Crown.

The content of the							
No depo it sites   Proc. 34 of 28.11.71   Still ope     O depo it sites   Proc. 34 of 28.11.71   Still ope     O do	eenee	.08.	Deposit	Sites.	When and under what	When and under what	When leased and by whom.
No depo sit sites  No depo sit sites  Go do	Н	roprietor.	Government.	Proprietor.	Proclamation proclaimed.	Proclamation abandoned.	
Accomposite stress (1705) and (1711) and (17		11.11	Z Z	7, 7,		GH:11 0200	
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do		- 33	ס	0	182 OI	"	
do "194 of 1888 do do "194 of 1888 do do "193 of 1888 do		"	p	0	356 of	33	
do "193 of 1888 do "201 of 2.11.91 do "201 of 2.11.92 do "201 of 2.11.93 do "201 of 1892 "202 of 1892 "202 of 28.6.97 "203 of 28.6.97		3.	p	0	194	33	
do ,, 303 of 2.11.91 do ,, 206 of 5.7.92 do ,, 162 of 1892 Nil Whole ,, 160 of 30.4.95 ,, 202 of 28.6.97 ,, 203 of 28.6.97		33	q	0	193 of 1	***	
do ,, 206 of 5.7.92 do ,, 162 of 181.93 do ,, 160 of 30.4.95 ,, 202 of 28.6.97 ,, 203 of 28.6.97		,,	p	0	303 of 2	33.	
do ,, 24 of 18.1.93 do Whole ,, 162 of 1892 ,, 160 of 30.4.95 ,, 202 of 28.6.97 ,, 203 of 28.6.97			d	0	206 of	•	
Nil Whole ,, 162 of 1892 ,, 160 of 30.4.95 ,, 202 of 28.6.97 ,, 203 of 28.6.97		,,	p	0	24 of	3)	
Nil Whole , 160 of 30.4.95 , 202 of 28.6.97 , 203 of 28.6.97		,,	p	0	162		
,, 202 of 28.6.97			Nil	Whole	160 of	33	
,, 203 of 28,6.97		7			202 of	**	
		***			203 of		

29

REMARKS -

(f) Only that partion open on Union Kopje Farm. Certain partion of Union Kopje Farm beaconed off as residential sites under authority of Letter M 9/10856 of 19.1.98.

(g) Further extended by Proclamation 59 of 1887.

(h) Further extended under authority of Letter B/198 of 24.6.86.

(i) Size of Claims Holpan II and III increased to 60 x 30 ft. and licence to 10s. per claim by Proclamation 66 of 29.2.96.

(j) Van Zoelens Laagte. Certain portions eliminated by Proclamations 323 of 7.8.95, 115 of 31.3.96, 204 of 15.6.96.

8) Size of claims increased to 60 x 30 ft. and licence to 10s. per claim by Proclamation 506 dated 24.12.95.

1/8 Size of claims increased to 60 x 30 ft. and licence to 103, per claim by Proclamation 196 dated 4.6.96. Certain portion eliminated by Proclamation 203 dated 15.6.96 and 520 dated 13.12.97.

# BARKLY WEST-continued.

CLASS III. - Mines and Diggings on Property on which there is no reservation of Minerals to Crown.

	Claim L	llaim Licences.	Deposit Sites.	When	When	2 1 1 1 1 1 2 1
MINE OR DIGGING.	Government.	Proprietor.	Government. Proprietor.		and under what Proclamation abandoned.	vy nen and by whom teased.
P'Niel Sawood's Ropje	Half	Half  	No Deposit Sites do. do. do.	Proc. 33 of 28.11.71 "33 of 28.11.71 "33 of 28.11.71 "53 of 4. 9.72 "33 of 28.11.71	Proc. 243 of 1887 ,, 53 of 17.2.96 ,, 58 of 17.2.96 ,, 5111 open	O., 27 1.88 to W. H. Stone.

REMARKS-(a) Keiskanna South, merely an extension of Waldeck's Plant, so called for convenience.

(b) Defined by Proclamation 195 of 29.6.82.

CLASS IV. -Alluvial Diggings in Kimberley Division proclaimed with consent of Proprietor.

When and ly whom leased	THE GLAS DY WENTER I GOOD.	
When	and under wheel it of a spandoned.	Proc 13 of 15.1.95 ,, 13 of 15.1.95 Still open ,,
When	and under what crossanation proclaimed	Proc. 129 of 1886 ,, 129 of 1886 ,, 129 of 1886 ,, 189 of 1887
Deposit Sites,	Government. Froprietor.	No Deposit Sites do.
Claim Licences.	Proprietor.	Half "
Claim I	Government.	Half "
	MINE OR DIGGING.	Spence's Kopje Liversides Wedberg or Robinson's Kopje No. 2 (u) Robinson's Kopje No. I

REMARKS-(a) Wedberg further extended by Proclamation 51 of 1887.

# BARKLY WEST-continued.

Division.
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s in
al Diggings
P
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CLASS

		CLASS		ıvial Diggin	V.—Alluvial Diggings in Herbert Division.	on.	
TOTOGENIA	Claim L	Claim Licences.	Deposit Sites.	Sites.	When	When what broadsmetion	When and hy whom leased.
Digging.	Government.	Proprietor.	Government.	Proprietor.	and under what Froctamation proclaimed.	and under what riceamaron abandoned,	WHEN AND DY WHOM LOADER
Atherton Diggings Jaber's Put Alluvial Diggings	Half	Half "	No Deposit Sites	sit Sites	Proc. 81 of 14,2.95	Proc. 358 of 19.10.96	

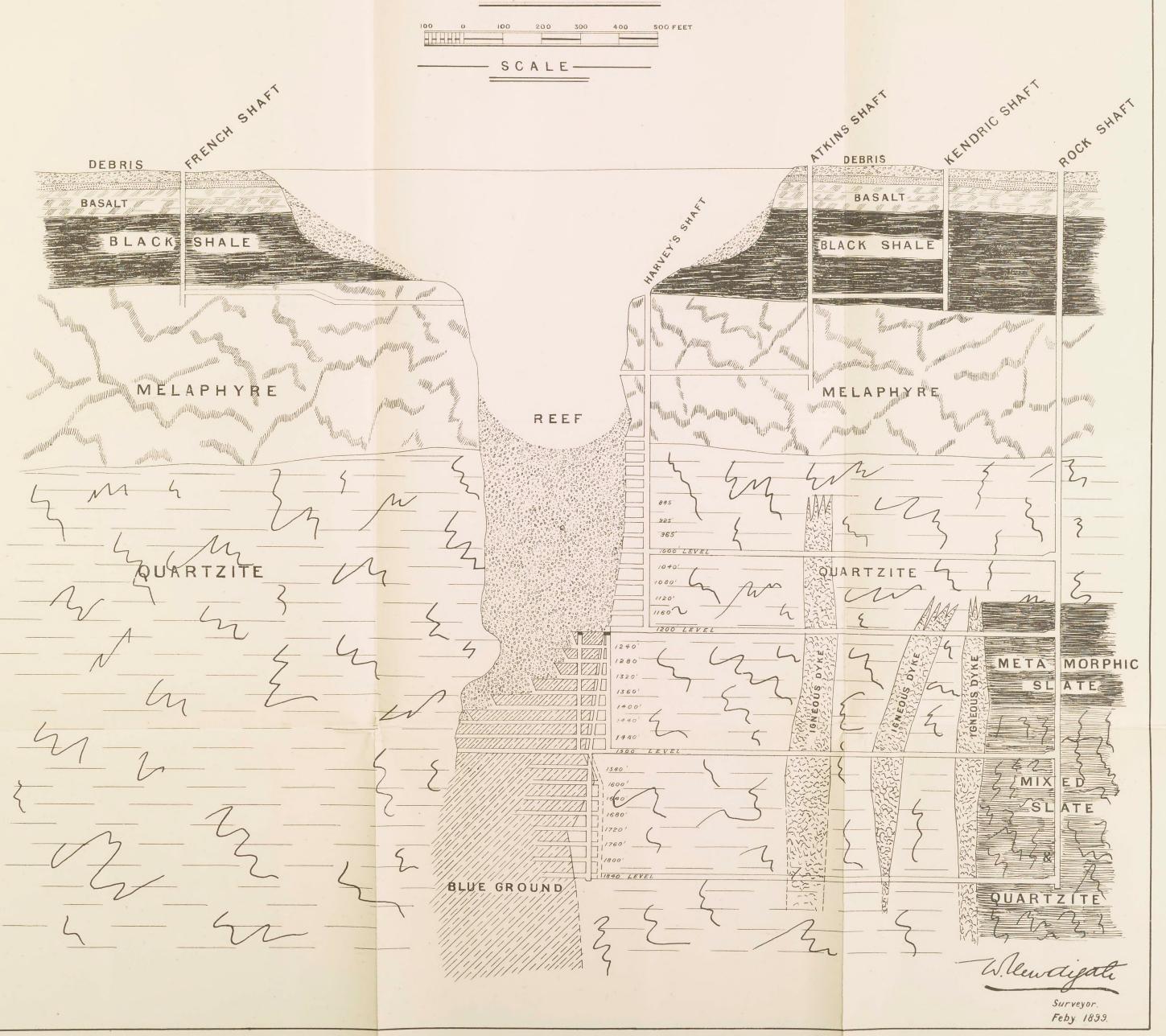
Inspector of Claims Office, Barkly West, February 1st, 1899.

Inspector of Claims. W. FRANKLIN,



# SECTION OF KIMBERLEY MINE

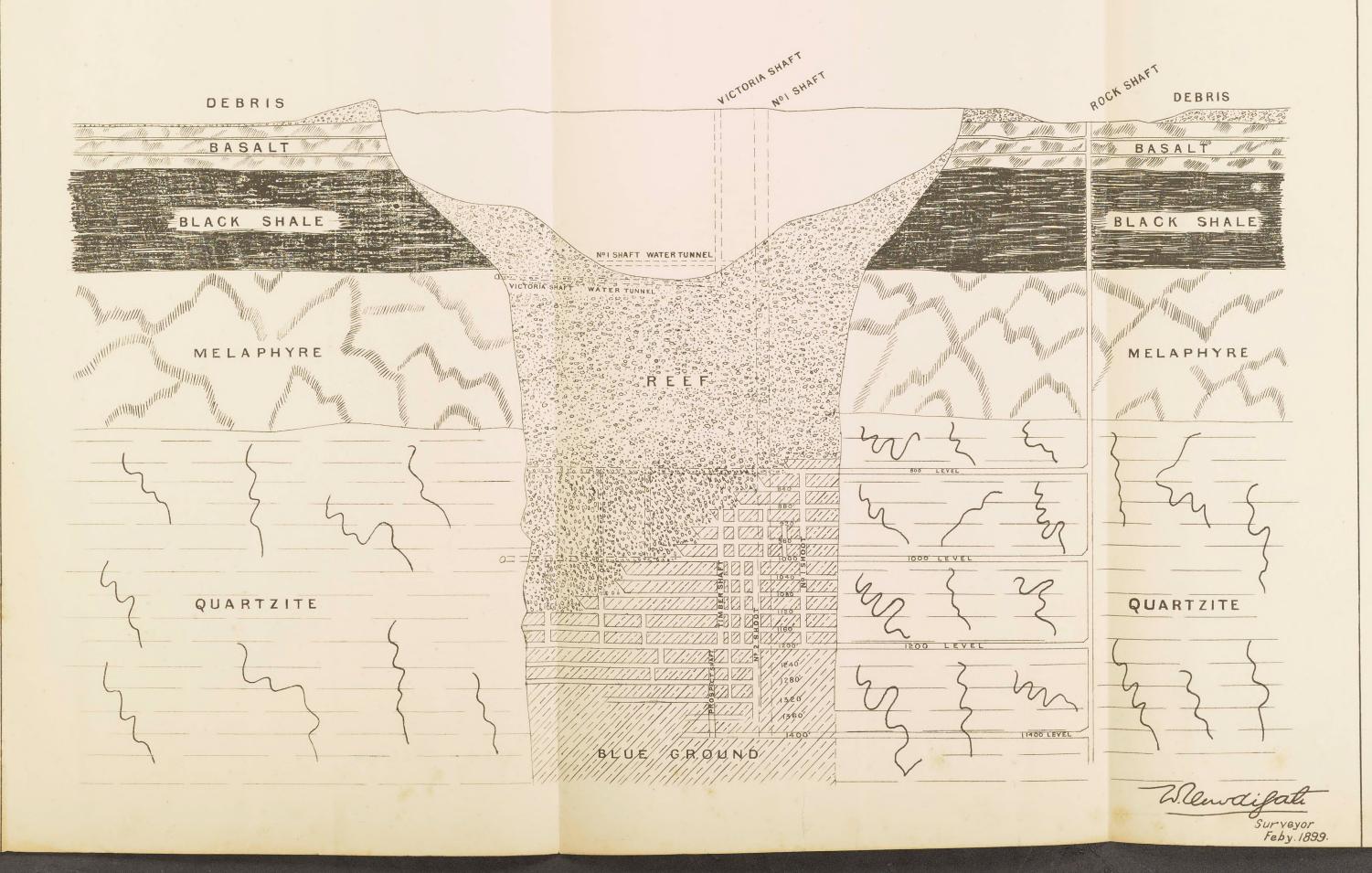
LOOKING WEST.



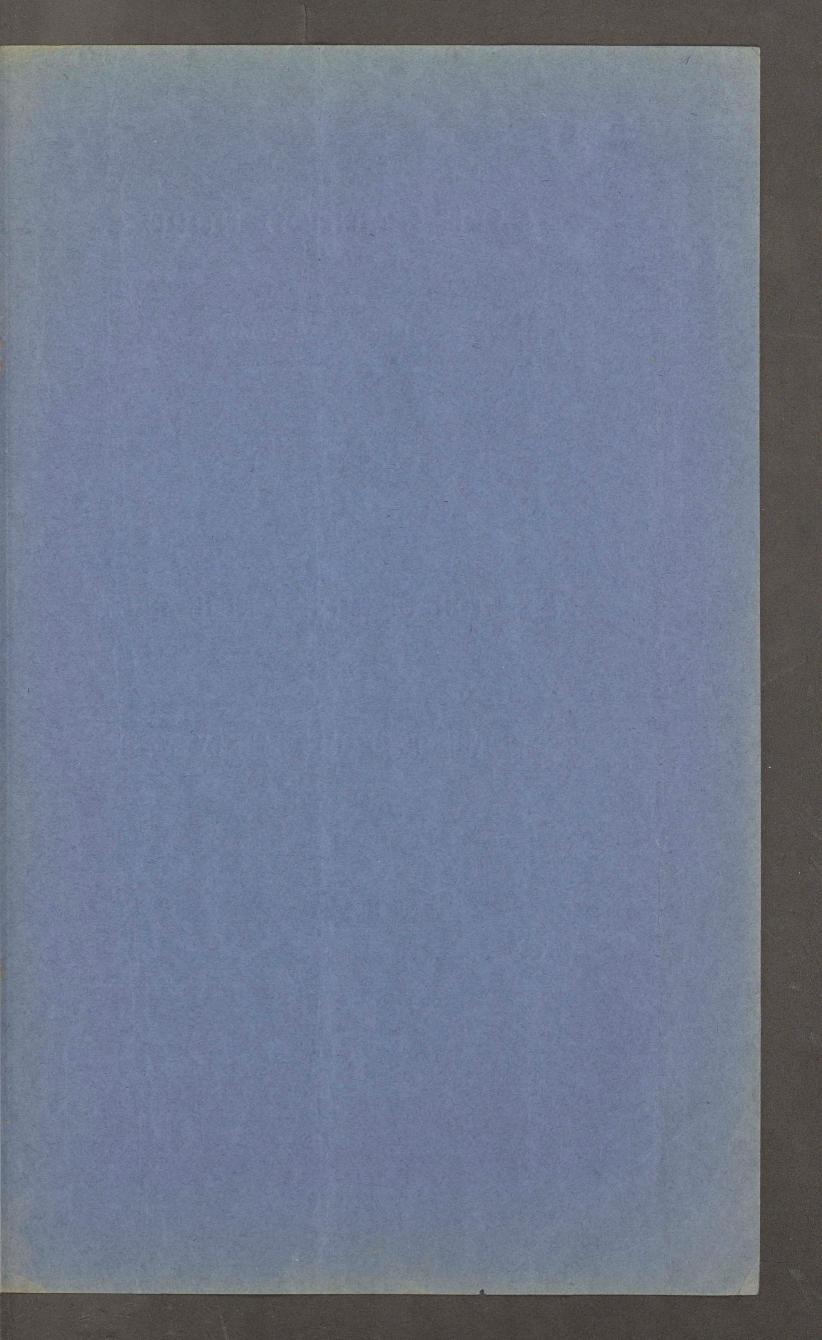
# SECTION OF DE BEERS MINE

LOOKING WEST.









# CAPE OF GOOD HOPE.

DEPARTMENT OF AGRICULTURE.

# REPORTS

OF THE

# INSPECTOR OF MINES, KIMBERLEY,

AND

# INSPECTOR OF CLAIMS, BARKLY WEST,

For the Year 1898.

Presented to both Houses of Parliament by command of His Excellency the Governor 1899.

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[G. 32—'99.]

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